## CTO MEETING GENEVA COMMUNIQUÉ

## 25 October 2011

## Geneva, Switzerland

Twenty ICT industry leaders and the senior management of the ITU Telecommunication Standardization Sector (ITU-T) met for the third annual CTO meeting on 25 October 2011 in Geneva and agreed on a set of recommendations to clarify the current ICT standardization landscape, strengthen the role of ICTs in disaster relief and prevention as well as e-health and telemedicine, and address critical new issues in standards work, including mobile access and mobile broadband in developing countries.

The CTOs reaffirmed the key role that standards play as a key driver for innovation and competitiveness and their critical role in promoting economic and social growth. Standards ensure that the ever-growing world of ICT devices, applications and services is seamless, global and affordable.

**Standards Landscape:** Faced with an ever-growing number of standards bodies and consortia, the CTOs renewed their call to modernize the standards landscape and its current diversity. They continued their work towards a new approach, based on improved collaboration, cooperation and coordination, in an effort to reduce unnecessary duplicating and conflicting standards and promote an interoperable, seamless future global communications network.

Based on a set of criteria previously agreed, they continued to identify and prioritize those standards activities and organizations on which to concentrate standardization resources. The concept was developed further to examine multi-dimensional eco systems for different markets and technologies, pre and post standardization, and appropriate links and cooperation among the SDOs, given the technological convergence that is taking place. The organizations considered as leaders in the telecommunications sector include 3GPP, ATIS, Broadband Forum, CCSA, ETSI, GSMA, IEEE, IETF, ITU, OMA, TTA, TTC, and W3C. TMF is being considered as one organization to be added to the list of key SDOs pending further development of their intellectual property policy.

To avoid duplication and conflicting standards, CTO recommend also to encourage cooperation between SDOs when starting new business or entering into new domains, and to enhance this cooperation by developing a harmonization phase between SDOs for common specifications, and when possible, by developing joint standards. There are a number of areas, e.g. smart grids, ITS, etc. where collaboration is particularly appropriate.

**Improving Effectiveness and Efficiency in Standards delivery:** A release-based production of standards for some parts of the fixed network, where there are a large variety of SDOs and Fora that frequently work with limited synchronization, along with a careful definition of the timing, could create efficiencies and help rationalize the standards landscape.

The CTOs recommend that ITU-T try to apply such a release-based approach. ITU's role would be to define a release and its requirements, to coordinate and interact in close relationship with other SDOs, to develop technologies associated to a release and to monitor its coherence. The CTOs endorsed a light but clear endorsement process in ITU-T to avoid duplication and to fast certify the work done in other recognized SDOs.

**Mobile Access:** As mobile telephony is becoming ubiquitous, it is also becoming a critical platform in accessing high-bandwidth content and applications on the Internet. The continuing challenge is to address a number of substantial elements that contribute to mobile access around the world, including policy and regulatory frameworks, investment decisions taken by operators, technical capabilities of advanced networks and "smart" hand-held devices, availability of harmonized spectrum, and a wide array of applications that answer the needs of users.

CTOs called on ITU to organize a two-day workshop in 2012 that would include government, private sector (operators, vendors), network technology experts, spectrum planners, applications developers and users to share experiences and best practices to expand mobile access around the world. Country and regional case studies can highlight recent experiences from operators, regulators and users to meet the growing needs for high-speed broadband mobility.

**E-health and telemedicine:** Standards are vital to the growth of telemedicine and e-Health. CTOs identified 3 stages of ICT maturity in the areas of health and recognized that broadband deployment is critical to providing health solutions. CTOs recommended that ITU accelerate its activities in developing the necessary infrastructure standards and cooperate with other organizations to foster reliable, secure and interoperable e-health solutions. They called on ITU to continue to investigate and develop solutions to provide Quality of Service, Quality of Experience and network security mechanisms to support e-health applications and telemedicine. The continued development of standards for audiovisual conferencing also is vital to telemedicine, while emphasis should also be placed on the need of developing countries for e-health and telemedicine applications.

ITU was encouraged to continue its leadership of the UN Broadband Commission to support e-health and to play a main role in the United Nations Digital Healthcare Initiative as well. The upcoming ITU workshop on e-health standards was welcomed. To develop a comprehensive approach to needed standards, CTOs also suggested that e-health be considered for a future Focus Group and a side event at WTSA-12.

Emergency Communications: The year 2011 has been marked by a series of natural disasters, notably the tsunami and earthquake in Japan, so an essential item on the agenda was the role of ICT in disaster relief. Communication systems can play a key role to provide early warning and disaster relief and are a critical element of managing disaster prevention and reducing loss of human life. While ITU has a number of important activities to address disaster relief and prevention, the CTOs observed that two important areas have not been addressed: (1) Disaster Relief for individuals (to notify the damage situation from victims to their relatives, friends, employers) and (2) Disaster Relief Guidance (to show victims the routes to evacuation shelters, home, etc.) They called on ITU-T to urgently study the

development of standards for disaster relief systems for individuals and for guidance and to establish a Focus Group to advance work on this critical subject, including the recovery and resilience of network infrastructure.

Mobile Broadband in Developing Countries: CTOs recognized the importance of efforts to enhance the fast deployment and cost effective support for mobile broadband in developing countries and emphasized that ITU can play an important role in developing the telecommunications infrastructure needed to support the mobile broadband deployment in those countries. Standardization might be necessary in identified areas to enable seamless interworking systems and in that regards ITU-T should cooperate with other organizations (e.g., 3GPP, IEEE, IETF, etc.) to develop requirements and solutions. Some areas and efforts that ITU can continue to benefit mobile broadband are: (1) Consider developing standards for sustainable migration scenarios across all technologies such as GSM, UMTS, CDMA, LTE, LTE-A; (2) consider developing standards addressing E2E aspects to improve the network efficiency and the quality of end-users experience; and (3) consider ITU-T as a SDO for developing a healthy data applications eco-system. These issues could also be addressed at the mobile access workshop.

Bridging the Standardization Gap: Standards are vital to connecting developing countries and providing access for all to communications, so bridging the Standardization Gap is a main focus of activities in ITU-T. CTOs welcomed the increasing role of developing countries in global standards development and the importance that those countries attach to issues such as cybersecurity, accessibility, capacity building and affordability. They pledged to develop partnerships with developing countries to strengthen national standards capacity. They encouraged the holding of further regional workshops on BSG as a means to engage standard officials from developing countries and to bring their concerns to the attention of CTOs.

**Human-Centric ICT:** Recognizing the importance of the human dimension in technology, CTOs called on ITU-T Study Groups to consider the human-centric ICT approach in areas such as e-health, smart cities, emergency communications and Internet of Things and to study the possible security, privacy and accessibility implications of human-centric ICTs. Further work is needed to assess the human-centric readiness of networks, services and applications, and to propose steps to make networks, services and applications more human-centric and in particular in the area of telemedicine.

WCIT: The first-ever World Conference on International Telecommunication (WCIT-12) is planned for December 2012 with the mandate to consider revisions to the International Telecommunication Regulations (ITRs) adopted in 1988. The flexible, high-level nature of the ITRs has provided a basis for tremendous growth of international communications and innovative services that were not even envisioned when they were written. The CTOs recognize the tremendous change in markets and technologies since 1988 and urge that any revisions to the ITRs maintain the necessary flexibility to enable continued growth in services for the next 20+ years. To provide a stable platform for continued growth, the CTOs believe the resulting ITRs should reflect technology-neutral, high-level principles and should be stable and enduring so that frequent updating is not necessary. The CTOs expressed that they would appreciate clarification on the preparatory process for WCIT including the regional prep meetings and how the Sector Members may participate.

Climate Change: The efforts of ITU and the ICT community to tackle climate change were encouraged. CTOs urged the upcoming UN Summit (COP17) to recognize the importance of technology in tackling climate change and in particular the important enabling role that ICTs can play in helping countries to adapt to the effects of climate change and in reducing GHG emissions across sectors. They also encouraged the ITU Membership to share best practices and raise awareness about the potential benefits of methodologies consented by ITU-T to assess the environmental impact of ICTs on GHG emissions and energy consumption (ITU-T L.1400, L.1410, L.1420) as well as other green ICT standards such as revised Recommendation ITU-T L.1000 "Universal power adapter and charger solution for mobile terminals and other handheld ICT devices".

Climate change is closely linked to building sustainable societies and the CTOs emphasized that ITU-T can play an important role by collaborating with other organizations in developing the standards needed for the Sustainable Networked Society. They invited ITU-T Study Groups to analyze the impact on their ongoing standardization work for a Sustainable Networked Society by considering the outcome from the Broadband Commission and in particular it's working group on Climate Change. The outcome of the analysis could be a gap analysis and a plan for the next steps in a collaborative standardization effort, which could be implemented as early as at WTSA 2012.

**Action Plan:** The CTOs expressed their appreciation for the progress that had been made under the Action Plan adopted at previous meetings. In particular they recognized that concrete actions are needed to improve coordination and collaboration with other ICT actors and relevant organizations.

Other specific recommendations addressed to the TSB Director include:

- 1. Encourage standard development for disaster relief communications taking into account the following points: (1) to identify all the possible use cases for Disaster Relief systems, especially Disaster Relief for individuals and Disaster Relief by guidance, (2) to identify requirements based on the use cases, and to develop related ITU standards needed, (3) to recognize that many victims run off with mobile terminal in hand after a disaster, (4) to recognize convenience of graphical guidance on mobile devices from view point of victims, and (5) to consider scalable vector graphics (SVG) as a key technology for graphical maps on mobile devices.
- 2. To encourage the next generation of standards makers, to promote the increased involvement of academia in the work of the sector and to develop and establish on-line standards education programs.

## **BACKGROUND**

The genesis for the CTO meeting came from the very successful Global Standards Symposium in October 2008, which led the World Telecommunication Standardization Assembly (WTSA-08, Johannesburg) to adopt Resolution 68 that requires ITU-T to strengthen its efforts to respond to the needs of high-level

industry executives in terms of their identified requirements and priorities for standardization, in order to strengthening the role of ITU-T, taking account of the needs of developing countries. The first-ever CTO meeting was held at ITU in Geneva, Switzerland on 6 October 2009 and the second in Paris on 29 October 2010 hosted by France Telecom/Orange. At the invitation of Mr. Malcolm Johnson, Director of the ITU Telecommunication Standardization Bureau, CTOs and equivalents of 20 leading companies of the ICT industry, representing major telecom operators and manufacturers, and software vendors, attended the meeting at the Palexpo Center in Geneva.

The participants welcomed the frank and positive discussions, agreed on a set of actions to be taken and decided to continue to meet regularly. The next meeting is scheduled to take place on 18 November 2012 in Dubai, UAE immediately preceding the Global Standards Symposium and World Telecommunication Standardization Assembly.

<sup>&</sup>lt;sup>i</sup> The participating organizations were: Alcatel-Lucent, Cisco, Ericsson, Etisalat Group, Freescale, Fujitsu, Huawei, KDDI, Microsoft, Nokia Siemens Networks, NTT, Netscout Systems, Orange FT Group, RIM, Telecom Italia, Telefonica, Telkom SA, Verizon, Vodafone and ZTE.